

INTERNATIONAL SEARCH REPORT

International Application No
PCT/IB2004/051232

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 G11B7/125 G11B11/00 G11B20/10 G11B19/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 G11B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 233 211 B1 (ISHIDA TAKASHI ET AL) 15 May 2001 (2001-05-15) column 1, line 24 - column 2, line 18 column 2, line 36 - line 67 column 3, line 10 - column 8, line 56 column 9, line 60 - column 18, line 6 column 18, line 18 - line 21 column 27, line 63 - line 66 figures 1-15,17-24,27,28	1-11
A	US 5 303 217 A (KABLAU JOHANNES G F ET AL) 12 April 1994 (1994-04-12) cited in the application the whole document	1-11 -/-

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

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Date of the actual completion of the international search

24 November 2004

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International Application No
PCT/IB2004/051232

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2001/043529 A1 (MINEMURA HIROYUKI ET AL) 22 November 2001 (2001-11-22) cited in the application the whole document -----	1-11
A	US 2002/126604 A1 (POWELSON JUDITH C ET AL) 12 September 2002 (2002-09-12) figures 10A-13B paragraphs '0181! - '0189! -----	1-11
A	US 5 631 887 A (HURST JR JERRY E) 20 May 1997 (1997-05-20) the whole document -----	1-11
A	US 5 805 632 A (LEGER GEARY L) 8 September 1998 (1998-09-08) figures 22,23,36 -----	1-11
A	WO 98/16014 A (PHILIPS ELECTRONICS NV ; PHILIPS NORDEN AB (SE)) 16 April 1998 (1998-04-16) cited in the application the whole document -----	1-11

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No
PCT/IB2004/051232

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 6233211	B1	15-05-2001	AU 759949 B2 01-05-2003
		AU 4650299 A 03-04-2000	
		BR 9913703 A 05-06-2001	
		CA 2340352 A1 23-03-2000	
		CN 1318194 T 17-10-2001	
		CN 1145942 T 14-04-2004	
		DE 69900017 D1 07-12-2000	
		DE 69900017 T2 07-06-2001	
		DE 69900018 D1 07-12-2000	
		DE 69900018 T2 07-06-2001	
		DE 69900020 D1 07-12-2000	
		DE 69900020 T2 13-06-2001	
		DE 69900021 D1 07-12-2000	
		DE 69900021 T2 13-06-2001	
		DE 69900025 D1 14-12-2000	
		DE 69900025 T2 21-06-2001	
		DE 69900033 D1 28-12-2000	
		DE 69900033 T2 13-06-2001	
		DE 69900039 D1 11-01-2001	
		DE 69900039 T2 13-06-2001	
		DE 69900041 D1 25-01-2001	
		DE 69900041 T2 13-06-2001	
		DE 69900184 D1 23-08-2001	
		DE 69900184 T2 28-03-2002	
		EP 0987692 A1 22-03-2000	
		EP 0987693 A1 22-03-2000	
		EP 0986054 A1 15-03-2000	
		EP 0987694 A1 22-03-2000	
		EP 0987695 A1 22-03-2000	
		EP 0987696 A1 22-03-2000	
		EP 0984441 A1 08-03-2000	
		EP 0987697 A1 22-03-2000	
		EP 0987698 A1 22-03-2000	
		ID 27793 A 26-04-2001	
		WO 0016322 A1 23-03-2000	
		WO 0016323 A1 23-03-2000	
		JP 3076033 B2 14-08-2000	
		JP 2000231719 A 22-08-2000	
		JP 3076036 B2 14-08-2000	
		JP 2000231715 A 22-08-2000	
		JP 3076037 B2 14-08-2000	
		JP 2000231716 A 22-08-2000	
		JP 3100961 B2 23-10-2000	
		JP 2000231717 A 22-08-2000	
		JP 3076038 B2 14-08-2000	
		JP 2000231720 A 22-08-2000	
		JP 3076039 B2 14-08-2000	
		JP 2000231718 A 22-08-2000	
		JP 2000231727 A 22-08-2000	
		JP 3099009 B2 16-10-2000	
US 5303217	A	12-04-1994	NL 8901588 A 16-01-1991
			AR 244456 A1 29-10-1993
			AT 114855 T 15-12-1994
			AT 114856 T 15-12-1994
			BR 9002971 A 20-08-1991
			BR 9002975 A 20-08-1991
			CN 1048279 A ,B 02-01-1991

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/IB2004/051232

Patent document cited in search report	Publication date	Patent family member(s)		Publication date	
US 5303217	A	CN CS DE DE DE DE EP EP HK HK HU HU JP JP JP JP JP JP JP KR KR NL PL SK SU US DE DE EP JP JP KR US	1048945 A ,B 9003068 A2 69014435 D1 69014435 T2 69014436 D1 69014436 T2 0404249 A1 0404251 A1 41396 A 41496 A 56979 A2 55559 A2 11339274 A 3102679 A 3179089 B2 2995334 B2 3034127 A 2002032916 A 169103 B1 255263 B1 9000328 A 285704 A1 280263 B6 1796076 A3 5226027 A 69024709 D1 69024709 T2 0404247 A1 3030121 A 3145099 B2 245544 B1 5105413 A	30-01-1991 17-12-1991 12-01-1995 01-06-1995 12-01-1995 14-06-1995 27-12-1990 27-12-1990 15-03-1996 15-03-1996 28-10-1991 28-05-1991 10-12-1999 30-04-1991 25-06-2001 27-12-1999 14-02-1991 31-01-2002 20-03-1999 01-05-2000 16-01-1991 11-03-1991 08-10-1999 15-02-1993 06-07-1993 22-02-1996 25-07-1996 27-12-1990 08-02-1991 12-03-2001 15-02-2000 14-04-1992	
US 2001043529	A1	22-11-2001	US EP EP JP TW US	2002085463 A1 1033704 A1 0865035 A2 10320777 A 382703 B 6269062 B1	04-07-2002 06-09-2000 16-09-1998 04-12-1998 21-02-2000 31-07-2001
US 2002126604	A1	12-09-2002	WO AU WO	03050803 A2 2086001 A 0157856 A1	19-06-2003 14-08-2001 09-08-2001
US 5631887	A	20-05-1997	NONE		
US 5805632	A	08-09-1998	US	5446765 A	29-08-1995
WO 9816014	A	16-04-1998	AU BR CN EP HU WO ID JP PL RU	4217397 A 9706828 A 1209917 A ,B 0865685 A1 9902037 A2 9816014 A1 20262 A 2000502539 T 327230 A1 2178618 C2	05-05-1998 23-03-1999 03-03-1999 23-09-1998 29-11-1999 16-04-1998 12-11-1998 29-02-2000 07-12-1998 20-01-2002

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/IB2004/051232

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 9816014	A	US 6778965 B1	17-08-2004
		US 2004225496 A1	11-11-2004
		US 6269338 B1	31-07-2001
		EP 0922334 A2	16-06-1999
		WO 9856116 A2	10-12-1998
		JP 2001501421 T	30-01-2001
		US 2001041984 A1	15-11-2001